AMENDMENTS TO THE CLAIMS

1. (Canceled)

2. (Canceled)

3. (Canceled)

4. (Canceled)

5. (Canceled)

6. (Canceled)

7. (Canceled)

8. (Canceled)

9. (Canceled)

10. (Canceled)

11. (Canceled)

12. (Canceled)

13. (Canceled)

14. (Canceled)

15. (Canceled)

16. (Canceled)

17. (Canceled)

18. (Canceled)

19. (Canceled).

20. (Canceled)

21. (Canceled)

22. (Canceled)

23. (Canceled)

24. (Canceled)

25. (Canceled)

26. (Canceled).

27. (Currently amended)   An apparatus comprising:

an area ruled vertical fin configured to minimize the rate of change of cross-sectional

areas of the apparatus, wherein the vertical fin includes a "waisted" area.

28. (Original) The apparatus according to Claim 27 further comprising:

a body coupled to the root of the vertical fin, wherein the vertical fin includes the
"waisted" area at the juncture of the body.

29. (Original) The apparatus according to Claim 27 further comprising:

a horizontal stabilizer coupled to the vertical fin, wherein the vertical fin includes the
"waisted" area at the juncture of the horizontal stabilizer.

30. (Original) The apparatus according to Claim 27, wherein the vertical fin includes
a plurality of the "waisted" areas.

31. (New)   The apparatus according to Claim 27, wherein the apparatus is an
aircraft.

32. (New)   The apparatus according to Claim 27, further comprising:

an area ruled strake coupled to the root of the vertical fin, wherein the root of the
vertical fin and the tip of the strake are configured with a "waisted" area.

33. (New)   The apparatus according to Claim 32 further comprising:
a fuselage coupled to the root of the strake.

34. (New)   The apparatus according to Claim 27 further comprising:
an inverted V-tail coupled to the vertical fin.

35. (New)   The apparatus according to Claim 27, wherein the tip of the vertical fin
        is configured with a "waisted" area.

36. (New)   The apparatus according to Claim 27, wherein the apparatus is a
watercraft.

37. (New)   The apparatus according to Claim 27, wherein the apparatus is an
automobile.

38. (New)   The apparatus according to Claim 27, wherein the fin is configured
based on a weighted average of vertical fin configurations for at least two Mach numbers.

39. (New)   An apparatus comprising:
a fin that includes a "waisted" area, wherein the cross-sectional area of the waisted
        area is configured to help minimize the rate of change of cross-sectional area
        of the apparatus.

40. (New)   The apparatus according to Claim 39 further comprising:
a body coupled to the root of the fin, wherein the fin includes the "waisted" area at
        the juncture of the body.

41. (New)   The apparatus according to Claim 39 further comprising:
a stabilizer coupled to the fin, wherein the fin includes the "waisted" area at the
        juncture of the stabilizer.

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42. (New)   The apparatus according to Claim 39, wherein the fin includes a plurality of the "waisted" areas.

43. (New)   The apparatus according to Claim 39, wherein the apparatus is an aircraft.

44. (New)   The apparatus according to Claim 39, further comprising:
an area ruled strake coupled to the root of the fin, wherein the root of the fin and the
        tip of the strake are configured with a "waisted" area.

45. (New)   The apparatus according to Claim 44 further comprising:
a fuselage coupled to the root of the strake.

46. (New)   The apparatus according to Claim 39 further comprising:
an inverted V-tail coupled to the fin.

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